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ORIGINAL ARTICLE

Hands-on Killing of Intimate Partners as a Function of Sex and Relationship Status/State

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Abstract Guided by evolutionary psychology and a situational perspective on violence, we generated three hypotheses to investigate whether the percentage of intimate partner homicides by beating, a hands-on homicide method, varies with the victim-offender relationship. We tested these hypotheses with a national database that includes incident-level information on over 50,000 intimate partner homicides. Results indicate that: (1) men are more likely than women to kill a partner by beating, and (2) men are more likely to kill their partners by beating when the relationship is dating or non-marital cohabiting (versus legal marriage). We argue that the lack of commitment in these non-marital relationships may produce greater jealousy in men, driving the perpetrator to kill his victim in a more violent manner (i.e., beating), relative to men who kill their wives.

Keywords Homicide · Beating · Violent · Hands-on · Killing · Relationship status

The killing of an intimate partner is perplexing because feelings of love usually characterize intimate relationships. Several theoretical perspectives have generated research designed to identify the contexts and motivations of partner-killing, including evolutionary perspectives and situational perspectives. Evolutionary psychologists argue that, over human evolutionary history, men and women have experienced conflicts of interest, with men attempting to control women's sexual behavior and women resisting that control (Buss and Shackelford 1997). Male jealousy functions to discourage sexual infidelity or termination of existing relationships by women, as well as to deter mate poaching by rival men (Buss et al. 1992; Schmitt and Buss 2001). Partner-killing is an extreme outcome of the use of mate-retention tactics resulting from jealousy (Daly and Wilson 1988; Duntley and Buss 2005). Guided by evolutionary psychological theories, researchers have investigated the contexts and motivations for partner-killing (Daly and Wilson 1999; Shackelford et al. 2003).

Situational perspectives on violence (see Wilkinson and Hamerschlag 2005) also have been used to investigate homicide. A situational perspective addresses characteristics of the offender, the victim, and contextual, circumstantial factors in homicide. Some situational factors that have been examined include regional attributes, such as urbanicity (Gallup-Black 2005), mental health (Dutton and Kerry 1999), and the availability of weapons (Paulozzi et al. 2001). Furthermore, sex (male, female) and age are relevant to homicide research. Men are most often the perpetrator in partner-killings, and variables such as age can influence the type of weapon used in the killing (e.g., Mize et al. 2007). For example, routine activities theory suggests that younger women are at a higher risk for partner-killing as a byproduct of being mated to younger men, who may be more violent and disadvantaged relative to older men (but see Shackelford et al. 2000).

In the current research, we draw upon both evolutionary and situational perspectives to investigate intimate partner homicide, with the goal of examining the effect of sex and relationship status/state on the use of personal weapon beatings as the killing method. We first review literature on sex differences in aggression and partner-killing to provide the rationale for why we hypothesize sex differences in the percentage of partner-killings committed in a hands-on

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manner. We next review the literature on homicide victim-offender relationships to provide the rationale for why we hypothesize differences in the percentage of partner-killings committed in a hands-on manner as a function of relationship status/state. Finally, we generate three hypotheses and use a national-level database to identify the percentages of one type of violent partner-killings as a function of sex and relationship status/state.

Sex Differences in Aggression and Partner-Killing

Sexual Strategies Theory (Buss and Schmitt 1993) provides an explanation for context-specific and sex-specific mating strategies. According to this theory, men and women differ psychologically in domains in which they faced different adaptive problems over evolutionary history (see Buss 1998). These differences lie primarily in the domains of mating and aggression because men and women faced different problems in the selection of mates and competition for mates. Women are more selective in their mate choices because they are the higher investing sex (e.g., pregnancy, lactation). Because it is not always possible to find men that can offer both "good genes" and high investment in offspring, women may engage in short-term mating with a partner that offers the best genes and seek a long-term commitment from another man. The resulting cuckoldry may result in violence from one or both males. Furthermore, the intensity of competition for high-quality mates is higher among men than among women and, hence, men are more likely to engage in risky behaviors and violence (Buss 1995, 1998; Buss and Shackelford 1997; Trivers 1972). Women's health and safety are more important for the survival of offspring, so the risk of engaging in aggression and violence is more costly for women than men (Campbell 1999). This is because the mother's investment mediates survival of offspring more than the father's investment and therefore men's reproductive success is moderated by their ability to find high investing females rather than their own survival and direct investment in childrearing (Buss and Shackelford 1997).

Other researchers have found sex differences in violence and aggression as well (e.g., Kirkpatrick et al. 2002). Specific to domestic relationships, however, researchers have found that men and women use aggression with similar frequency (e.g., Bookwala et al. 2005). However, Bookwala et al. reported that the injuries inflicted by violence differed for men and women, with men inflicting more severe injuries and being more likely to kill their partner (see also Hamby 2005). Furthermore, the Bureau of Justice Statistics (Langan and Dawson 1995) indicates that women are at a greater risk than are men of being killed by an intimate partner.

Although women are the more selective sex in mate selection, they are limited in mate choices by their own mate-value and even higher-quality women may remain in abusive relationships for a variety of reasons. Some women may be reluctant to leave their abusive partners because of social pressures such as religious beliefs prohibiting divorce. Women who are victims of intimate partner abuse have higher scores on self-defeating personality scales (Pico-Alfonso et al. 2008). Therefore, self-defeating behaviors may develop in response to abuse, in turn decreasing the likelihood that abused partners will leave the relationship allowing for further escalation in the violence, which in some instances may lead to partner-killing.

The motivations for killing a partner may differ for men and women. Men are more likely to kill in response to a partner's infidelity (Daly and Wilson 1988), whereas motivations for women are more likely to include want for resources (Kirkwood 2003) and fear for themselves or their children (Johnson and Hotton 2003). Both men and women report feelings of anger in response to jealousy-inducing stimuli, but they also experience sex-differentiated feelings (Pietrzak et al. 2002). Whereas men report anger as the primary feeling in response to partner infidelity, women report additional feelings including anxiety and fear. Given that men report their motivation to be anger when they kill their partners, men may use methods that reflect greater rage.

Researchers have found differences in killing methods between the sexes. Men tend to kill their partners using methods that require close proximity to their victims, including methods that do not involve a weapon, such as beating or strangling (Dobash et al. 2004; Frye et al. 1999). As indicated above, this may reflect rage and spontaneity of the killings in response to suspected or actual infidelity. Women, in contrast, use weapons more often in physical conflicts with their partners (Langan and Dawson 1995). Given that women's reported motivations for partner killing include fear for personal and offspring safety, likely related to ongoing abuse, when women kill their partners, they may react less from spontaneous rage and more out of fear with premeditated self-defense using a weapon, perhaps to offset the size and strength difference between men and women (McNeely and Mann 1990).

Relationship Status/State and Partner-Killing

Intimate relationships vary in level of commitment as a function of their status (i.e., married, dating) and state (intact versus estranged). Teachman (2008) found that cohabiting prior to marriage does not increase divorce rates but only about a third of cohabiting couples plan to marry (Manning and Smock 2005) supporting that married

couples, relative to common-law or dating couples, may be more committed to the relationship. Booth and Johnson (1988) found that, relative to marriages, non-marital cohabiting and dating relationships are more likely to be terminated and, hence, are less stable. Gottman (1993) found a correlation between lack of stability in relationships and increased hostility within the couple. At an extreme, this hostility can lead to partner-killing (Daly and Wilson 1988; Shackelford 2001; Wilson and Daly 1993; Wilson et al. 1995).

Daly, Wilson and their colleagues have demonstrated that relationship status predicts homicide risk for intimate partners (Daly and Wilson 1988; Wilson and Daly 1993; Wilson et al. 1995). There is an increased risk of homicide among cohabiting partners or common-law partners relative to married partners. Shackelford (2001) found that, in the United States, men kill women with whom they are cohabiting but not married at nine times the rate that men kill women to whom they are legally married. Mouzos and Shackelford (2004) found comparable homicide risk differentials for cohabiting versus married men both in Australia (16 times higher) and in the United States (10 times higher). Overall, the research indicates that cohabitation increases the risk of partner homicide relative to living in a marital relationship.

Within relationship states (i.e., legally married and dating), researchers have found sex differences in perpetration and victimization in partner-killings. Wilson and Daly (1993) observed that estrangement is associated with a higher risk of uxoricide (wife-killing by men) but not mariticide (husband-killing by women). Block and Christakos (1995) found that men were more likely to be the offender in partner homicides involving estranged relationships and common-law relationships. Kimmel (2002) suggests that a desire for control motivates men to use violence. He argues that the greater likelihood of men's violence against estranged partners is a result of a loss of control over the partner (see Figueredo 2001; Johnson and Hotton 2003). Common-law and dating relationships may involve higher levels of jealousy and, therefore, greater use of violence specifically by men.

The victim-offender relationship is important not only in predicting the likelihood of homicide, but also in evaluating the motivation for homicide (Dawson and Gartner 1998; Johnson and Hotton 2003). The weapon used may reflect the motivations for the killing (Daly and Wilson 1994; Silverman and Mukherjee 1987; Weekes-Shackelford and Shackelford 2004). Partner-killing men frequently are motivated to kill their partners when they suspect infidelity. Relationships involving less apparent commitment (e.g., common-law or dating relationships) may raise these concerns in men. Dawson and Gartner (1998) found that boyfriends were four times more likely than were married men to report jealousy as the motivating factor for killing their partners. A more violent manner of killing, in turn, may reflect increased levels of jealousy.

Summary of Previous Literature

Men are more likely to kill their partners and to use their bare hands to kill their partners than are women. When women do kill their partners, they are more likely to use weapons. Wilkinson and Hamerschlag (2005) have suggested that the victim-offender relationship is another important factor in partner violence. Men and women in cohabiting, non-marital relationships are at greater risk of being killed by their partners than are spouses. In addition, estranged partners are at greater risk for homicide than are partners in intact relationships. What is lacking from the research on relationship status and state is a focus on the differences in killing method as a function of these factors. A goal of the current research is to address this empirical gap in the literature by investigating whether the use of a violent killing method is associated with the victim-offender relationship.

Hypotheses and Predictions

For the current study, we are interested in hands-on killings by beating, and we propose that the method of killing may reveal the motivations of the perpetrator. Following previous research (Daly and Wilson 1994), we define killings as violent if they were committed by beating the victim with a personal weapon (see Methods). We generated three hypotheses to examine the percentages of violent partner-killings as a function of sex and relationship status.

Men more than women engage in direct aggression and the injuries inflicted by men's violence are more severe. Furthermore, men report that they feel anger and betrayal over sexual infidelity (Pietrzak et al. 2002) and they report that they kill their partners in response to a partner's infidelity (Daly and Wilson 1988). Therefore, men's killing methods may reflect more rage relative to women and thus we hypothesized that there will be higher percentages of hands-on deaths among men who kill their partners relative to women who kill their partners. We derived four predictions from this hypothesis. We predicted higher percentages of hands-on homicides among: (a) men who kill their wife versus women who kill their husband, (b) men who kill their common-law wife versus women who kill their common-law husband, (c) men who kill their ex-wife versus women who kill their ex-husband, and (d) men who kill their girlfriend versus women who kill their boyfriend.

Because of the physical strength difference between women and men, women will be less likely to kill their partners by beating them, regardless of relationship status. Therefore, we hypothesized equally low percentages of violent deaths among women who kill their legal husband, common-law husband, ex-husband, and boyfriend.

Characteristics related to relationship status, such as apparent commitment and access to the victim, may result in differences in killing method. We hypothesized that the percentage of hands-on homicides committed by men will vary with relationship status. We derived six predictions from this hypothesis. Because boyfriends report jealousy as a motive for killings more often than husbands (Dawson and Gartner 1998) and because men often express rage as a correlate of jealousy (Pietrzak et al. 2002), we predicted higher percentages of beating homicides among: (a) men who kill their girlfriend versus men who kill their legal wife, and we predicted parallel results for (b) men who kill their common-law wife versus those men who kill their legal wife. Men in common-law relationships may perceive greater partner commitment and relationship security relative to men in dating (non-cohabiting) relationships and, therefore, we predicted a higher percentage of homicides by hands-on beating among (c) men who kill their girlfriend versus men who kill their common-law wife. Because women are at greater risk for homicide when estranged (Wilson and Daly 1993), we expect that they will be at increased risk to be killed in a violent manner and, thus, we predicted a higher percentage of violent homicides for (d) men who kill their ex-wife versus men who kill their current legal wife. Based on access to the victims being higher for girlfriends as compared to ex-wives men may have more opportunity to kill girlfriends by methods involving close proximity. Therefore, we predicted that the percentages of hands-on homicides will be higher for (e) men who kill their girlfriend versus men who kill their ex-wife. Likewise, men have greater access to partners with whom they cohabit relative to estranged partners and individuals in common-law unions may be prone to insecurities over commitment as well as stresses related to shared responsibilities (Dawson and Gartner 1998). Consequently, we predicted that the percentages of hands-on homicides will be higher for (f) men who kill their common-law wife versus men who kill their ex-wife.

Method

Database

The United States Federal Bureau of Investigation collects incident-level information (i.e., weapon use, victim, and offender characteristics) from each state on criminal homicides and releases this information to the public in the Supplementary Homicide Reports (SHR; Fox 2004). The current analyses use SHRs for 1976 through 2001 (the most recent, publicly available data).

Procedures

Much of the information suggesting the state and status of gay and lesbian partnerships is unavailable from the SHR. For example, there is no code in the SHR for ex-gay and ex-lesbian partners. Additionally, even for the limited regions of the United States that currently recognize legal unions among gay and lesbian partners, the SHR does not provide information on the registration status of these couples. This prohibits parallel comparisons for gay and lesbian partners with those involving common-law, legal spouses, and ex-spouses in the heterosexual group and therefore the focus of the current research is on heterosexual relationship exclusively.

To be included in the analyses, incidents had to be coded as follows: The *Relationship of Victim to Offender* variable had to be coded as Husband, Wife, Common-law husband, Common-law wife, Ex-husband, Ex-wife, Boyfriend, or Girlfriend. Consistent with previous research on homicide between intimate partners (e.g., Block and Christakos 1995; Mize and Shackelford 2008), the *Age* variable had to be coded as at least 13 years for both victim and offender, so that both parties were in the range of sexual maturity (results do not change significantly if the cut-off age is increased to 18). The age of victims ranged from 13 to 99 or older with a mean of 37.84 and the age of offenders ranged from 13 to 99 or older with a mean of 39.20. The sample included 27,312 (54.3%) white, 21,892 (43.1%) black, 421 (.8%) American Indian, 611 (1.2%) Asian and Pacific Islander, and 243 individuals coded as unknown ethnicity. The offenders were of similar ethnic composition with 26,555 (52.8%) being white, 22,316 (44.4%) being black, 428 (.9%) being American Indian, 571 (1.1%) being Asian and Pacific Islander, and 409 partners being of unknown ethnicity. Following previous research (Daly and Wilson 1994), we defined violent killings as "hands on" beatings, which were coded in the SHR as "personal weapon—hands, feet teeth, etc."

Results

Table 1 shows the frequency and percentage of killings by weapon. Of the total number of partner homicides, 2,792 (5.6%) were committed by beating. Within these beating homicides, women were the perpetrators in only 97 (3.5%) cases. We conducted an analysis to evaluate the differences in the percentage of killings perpetrated by beatings versus

Table 1 Frequency and percent of killings by murder weapon employed as a function of sex of offender

Weapon	Frequency (% of Group Total)		
	Male	Female	Total (%)
Firearm, type not stated	602(1.9)	283 (1.5)	885(1.8)
Handgun—pistol, revolver, etc.	15,018(47.0)	9,216(50.3)	24,234(48.2)
Rifle	2,001(6.3)	966(3.3)	2,967(5.9)
Shotgun	3,047(9.5)	1,167(6.4)	4,214(8.4)
Other gun	36(0.1)	19(0.1)	55(0.1)
Knife or cutting instrument—ax, icepick, etc.	4,934(15.4)	5,915(32.3)	10,849(21.6)
Blunt object—hammer, club, etc.	1,464(4.6)	232(1.3)	1,696(3.4)
Personal weapon—hands, feet, teeth, etc.	2,695(8.4)	97(0.5)	2,792(5.6)
Poison	40(0.1)	27(0.1)	67(0.1)
Pushed or thrown out window	25(0.1)	2(0.0)	27(0.1)
Explosives	8(0.0)	6(0.0)	14(0.0)
Fire	196(0.6)	78(0.4)	274(0.5)
Narcotics and drugs	74(0.2)	27(0.1)	101(0.2)
Drowning	50(0.2)	1 (0.0)	51(0.1)
Strangulation—choking, hanging, etc.	842(2.6)	84230(0.2)	872(1.7)
Asphyxiation	210(0.7)	14(0.1)	224(0.4)
Unknown	728(2.3)	229(1.3)	957(1.9)
Total	31,970(100)	18,309(100)	50,279(100)

Weapon categories are those used in the SHR database

other killing methods as a function of sex. This analysis resulted in a significant effect, supporting a sex difference in the perpetration of killings by beating versus other killing methods, $\chi^2(1, N=50{,}279)=1{,}385.34$, $p<.001$.

We next conducted an analysis to evaluate differences in the percentage of beatings across the relationship groups (Husband, Wife, Common-law husband, Common-law wife, Boyfriend, Girlfriend, Ex-husband, and Ex-wife). This analysis generated a significant effect, $\chi^2(7, N=50{,}279)=1{,}615.12$, $p<.001$. We conducted follow-up analyses to test the differences among these percentages. The percentage (6.9%) of beatings of a spouse by men was higher than the percentage (0.5%) of beatings of a spouse by women $\chi^2(1, N=26{,}892)=560.67$, $p<.001$, providing support for Hypothesis 1, prediction a. The percentage (11.0%) of men who beat their common-law wife to death is higher than the percentage (0.6%) of women who beat their common-law husband to death, $\chi^2(1, N=4{,}853)=235.49$, $p<.001$, providing support for Hypothesis 1, prediction b. The percentage (4.0%) of killings by beating among men who kill their ex-wife is higher than among women who kill their ex-husband (0.3%) , $\chi^2(1, N=2{,}035)=22.33$, $p<.001$, providing support for Hypothesis 1, prediction c. Men are more likely to kill their girlfriends by beating them (10.8%) than are women to kill their boyfriends by beating them (0.8), $\chi^2(1, N=16{,}499)=563.\ 54$, $p<.001$, providing support for Hypothesis 1, prediction d.

Supporting Hypothesis 2, there was no difference in the percentage of homicides by beatings as a function of relationship status for women who kill their partners, $\chi^2(3, N=18{,}373)=5.93$, $p=.115$. Supporting Hypothesis 3, there were differences in the percentage of beatings by men who kill their partners as a function of relationships status, $\chi^2(3, N=31{,}906)=185.05$, $p<.001$, although not in the specific order that we predicted. As predicted, there was a higher percentage of beatings among men who kill their (a) girlfriend (10.8%) versus legal wife (6.9%), $\chi^2(1, N=28{,}050)=129.25$, $p<.001$, (b) common-law wife (11.0%) versus legal wife (6.9%), $\chi^2(1, N=19{,}933)=51.90$, $p<.001$, (e) girlfriend (10.8%) versus ex-wife (4.0%), $\chi^2(1, N=11{,}973)=62.46$, $p<.001$, and (f) common-law wife (11.0%) versus ex-wife (4.0%), $\chi^2(1, N=3{,}856)=55.41$, $p<.001$. Contrary to the predicted order, there was a higher percentage of beating deaths among men who kill their (d) legal wife (6.9%) versus ex-wife (4.0%), $\chi^2(1, N=3{,}856)$ $\chi^2(1, N=18{,}829)=17.38$, $p<.001$. Furthermore, there was no difference in the percentage of beating deaths among men who kill their (c) girlfriend (10.8%) versus common-law wife (11.0%), $\chi^2(1, N=13,\ 077)=.06$, $p=.804$.

Discussion

We secured access to a sample of over 50,000 intimate partner homicide cases to test three hypotheses about the percentages of killings by beating as a function of sex and relationship status/state. Results provided support for most of the hypotheses and predictions, indicating that the killing

methods in partner homicides are associated with the sex of the perpetrator and victim and the victim-offender relationship. Specifically, killing by beating occurs in a greater percentage of partner homicides in which a man is the perpetrator and his relationship with the victim is boyfriend or common-law husband.

Consistent with Hypothesis 1, men killed their partners by beating more frequently than did women. At least two factors may contribute to this result. First, men are more prone to physical aggression than are women. Second, there is a size and strength differential between men and women. In a physical conflict, women are at a disadvantage due to their lesser size and strength relative to their partner. Therefore, men may be physically more able to beat a person to death. This sex difference also may help to account for the empirical support for Hypothesis 2.

Results partially supported Hypothesis 3. The percentage of men that kill their partners by beating did differ with the relationship between the man and his victim. Some of the situational factors associated with the different types of relationships may account for these results. For example, men in common-law relationships are more likely to be younger and to have criminal records (Dawson and Gartner 1998), both factors that may be related to increased violence by men.

We did not find support for two of the predictions for Hypothesis 3 and this may be related to at least two factors: commitment levels and access to the victim. Contrary to prediction, there was no difference between the percentages of girlfriends and common-law wives beaten to death. Although we originally categorized common-law relationships as similar to marital relationships, some similarity in circumstances for common-law and dating relationship groups may explain this result. Because people in dating relationships and in common-law marriages may not have the assurance of commitment that characterizes marriage, feelings of jealousy may be at higher levels relative to married relationships, but at similar levels relative to one another. When a man kills his girlfriend or common-law wife, his feelings of jealousy and rage may be more intense, resulting in a more violent killing such as by beating, relative to when a man kills his wife. This is in line with the research discussed in the introduction that non-marital cohabiting relationships may be less stable (Booth and Johnson 1988) relative to legally married relationships, making them more similar to dating relationships in this respect. It is also in line with Shackelford and his colleague's work (Mouzos and Shackelford 2004, Shackelford 2001) suggesting that there is increased risk of homicide between cohabiting partners relative to married partners. It is possible that this is due to a decreased reduction in survival of cohabiting partners to marriage, however Manning and Smock (2005) report that two-thirds of their non-marital cohabiting participants reported that they did not intend to legally marry. It is important to recognize that in some jurisdictions, relationships are identified by the state as common-law marriages simply as a result of two opposite sex partners cohabiting and demonstrating a shared responsibility for finances rather than the partners themselves choosing to identify themselves as married.

Contrary to the prediction of order, there are a higher percentage of beating deaths by men who kill their legal wife versus those that kill their ex-wife. Although the commitment of a married woman is higher than that of a woman who has defected from a relationship, there also is the issue of accessibility of the victim to the perpetrator. Daly and Wilson (1988) suggested that, in legally married couples, proximity increases the risk of uxoricide. Consistent with this suggestion, because spouses are likely to live in the same residence, men have access to their wives to be able to beat them to death. The perpetrator and victim also are likely to be in the privacy of their own home, and there may not be witnesses (other than children) to stop the beating. Estranged and divorced spouses, in contrast, are likely to live in different residences. This limits the access the man has to his former partner and, therefore, when he does kill her he may use another method, such as shooting (Block and Christakos 1995), which does not require close contact with the victim.

Although the SHR provides incident-level information on thousands of homicides, this database is limited in several respects relevant to the current research. For example, the SHR does not report the offender's mental health status, motive or the number of wounds inflicted on the victim. Data on these variables would reduce the need to speculate about the motive for the homicide and might allow us to corroborate the assumption of heightened violence or brutality that we infer from a beating death. Future research might examine these variables using other databases or case studies. The lesser ability of women to kill men with their bare hands may be obscuring differences in violent homicides as a function of relationship status in the current research. To address this potential confound, future research should examine the risk of violent deaths for men as a function of relationship status using a killing method that eliminates or reduces the strength difference between men and women (i.e., stabbings).

Previous research has established that younger women are at greater risk for being killed by an intimate partner (Shackelford et al. 2000), and that they are at greater risk for being killed specifically in a violent manner (Mize et al. 2007). The current research demonstrates that relationship status is another risk factor for violent killings of women by their partners, not only in legal marriages but also in common-law, dating, and estranged relationships. There is

no parallel increased risk for men as a function of relationship status, although this may be a result of the lesser likelihood that a woman is able to kill a man by beating him.

Making victims of partner violence and domestic violence advocates aware of risk factors including relationship state and status for being killed by an intimate partner may help reduce domestic partner killings. Berkowitz (2002) suggest that many boys and men overestimate the likelihood of male approval of violence against women, leading to more abuse. Therefore, educating male batters about the social norms of their peers may serve to reduce domestic violence and partner-killing as well.

In summary, the current research adds to the literature the finding that men are more likely to kill their partners by violently beating them in cases in which the victim-offender relationship is dating or non-marital cohabiting. The lack of commitment in these relationships (relative to legal marriages) may lead to higher levels of men's jealousy. This greater jealousy, in turn, may result in greater rage and drives the perpetrator to kill his victim in a more violent manner (i.e., beating), relative to men who kill their more-committed partners (e.g., legal wives).

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